



Cf	13	4040026	1977-08-02	Gernelle
	14	4054951	1977-10-18	Jackson et al.
	15	4077059	1978-02-28	Cordi et al.
	16	4080651	1978-03-21	Cronshaw et al.
	17	4080652	1978-03-21	Cronshaw et al.
	18	4084228	1978-04-11	Dufond et al.
	19	4084234	1978-04-11	Calle et al.
	20	4086629	1978-04-25	Desyllas et al.
	21	4091455	1978-05-23	Woods et al.
	22	4096567	1978-06-20	Millard et al.
	23	4110823	1978-08-29	Cronshaw et al.
	24	4123795	1978-10-31	Dean, Jr. et al.
	25	4126894	1978-11-21	Cronshaw et al.
	26	4158235	1979-06-12	Call et al.
	27	4189770	1980-02-19	Gannon et al.
	28	4215400	1980-07-29	Denko
	29	4228501	1980-10-14	Frissell
	30	4241420	1980-12-23	Fish et al.
	31	4246637	1981-01-20	Brown et al.
	32	4276595	1981-06-30	Brereton et al.
	33	4298932	1981-11-03	Sams
	34	4310883	1982-01-12	Clifton et al.
	35	4318184	1982-03-02	Millett et al.
	36	4327408	1982-04-27	Frissell et al.
	37	4412285	1983-10-25	Neches et al.
	38	4414644	1983-11-08	Tayler
	39	4467421	1984-08-21	White
✓	40	4533995	1985-08-06	Christian et al.

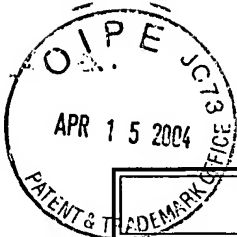
RECEIVED

APR 19 2004

Technology Center 2100

Signature *Fernandes*

Examiner Name	Date
CHERYL FERNANDES	7/13/04



# ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18

Stylesheet Version v18.0

Title of  
Invention

VIRTUAL VOLUME MANAGEMENT SYSTEM AND  
METHOD

Application Number: 10/033503

Confirmation Number: 8645

First Named Applicant: Ravi Kavuri

Attorney Docket Number: 2001-028-NSC (STK 01028 P)

Search string: ( 3130387 or 3292153 or 3699533 or 3806888  
or 3909799 or 3928857 or 3936804 or 3949377  
or 3949379 or 3976977 or 4021782 or 4035778  
or 4040026 or 4054951 or 4077059 or 4080651  
or 4080652 or 4084228 or 4084234 or 4086629  
or 4091455 or 4096567 or 4110823 or 4123795  
or 4126894 or 4158235 or 4189770 or 4215400  
or 4228501 or 4241420 or 4246637 or 4276595  
or 4298932 or 4310883 or 4318184 or 4327408  
or 4412285 or 4414644 or 4467421 or  
4533995 ).pn.



RECEIVED

APR 19 2004

Technology Center 2100

## US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
(F)	1	3130387	1964-04-21	Wright et al.			
	2	3292153	1966-12-13	Barton et al.			
	3	3699533	1972-10-17	Hunter			
	4	3806888	1974-04-23	Brickman et al.			
	5	3909799	1975-09-30	Recks et al.			
	6	3928857	1975-12-23	Carter et al.			
	7	3936804	1976-02-03	Bachman			
	8	3949377	1976-04-06	ONeill Jr.			
	9	3949379	1976-04-06	Ball			
	10	3976977	1976-08-24	Porter et al.			
	11	4021782	1977-05-03	Hoerning			
✓	12	4035778	1977-07-12	Ghanem			

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitution for Form 1449A/P-10 <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b> (use as many sheets as necessary)				Complete if Known	
				Application Number	10/033,503
				Filing Date	December 27, 2001
				First Named Inventor	Ravi K. Kavuri
				Group Art Unit	2171
				Examiner Name	Unknown
Sheet	1	of	2	Attorney Docket Number	STK 01028 PUS (2001-028-NSC)

## U.S. PATENT DOCUMENTS

[illegible]

## FOREIGN PATENT DOCUMENTS

Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>8</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
CF			CA 892798		IBM Corporation	02-08-1972		
CF			GB 1,167,762		Burroughs Corp.	10-19-1966		
CF			GB 1,353,770		John William Irwin	09-27-1971		
CF			GB 1,359,662		Honeywell Inf. Sys	07-28-1971		
CF			GB 1,496,779		Honeywell Inf. Sys	12-18-1974		
CF			GB 1,547,381		Porter et al.	03-25-1976		
CF			GB 2 063 532	B	Storage Technology	09-16-1980		
CF			JP 51-18409		Hitachi Ltd.	02-14-1976		

Examiner Signature	<i>Bernandez</i>	Date Considered	7/13/04
-----------------------	------------------	--------------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

\* Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>a</sup> Applicant is to place a check mark here if English language Translation is attached.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for Form 1449A/P.T.O.

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

*(use as many sheets as necessary)*

**Complete if Known**

Application Number	10/033,503
Filing Date	December 27, 2001
First Named Inventor	Ravi K. Kavuri
Group Art Unit	2171
Examiner Name	Unknown
Attorney Docket Number	STK 01028 PUS (2001-028-NSC)

Sheet	2	of	2
-------	---	----	---

## U.S. PATENT DOCUMENTS

[illegible]

## FOREIGN PATENT DOCUMENTS

Examiner Initials <sup>1</sup>	Cite No. <sup>1</sup>	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T <sup>6</sup>
		Office <sup>3</sup>	Number <sup>4</sup>	Kind Code <sup>5</sup> (if known)				
CF			JP 53-22331		Fujitsu Electric	03-01-1978		
CF			JP 53-98741		Nippon Electric	08-29-1978		
CF			JP 55-153058		Fujitsu Limited	11-28-1980		
CF			JP 55-164958		Memorex Corp.	12-23-1980		
			JP 4 48250			08-06-1992		
			JP 53-84632			07-26-1978		
CF			JP 52-106641			09-07-1977		
CF			JP 108747		Honeywell Inf. Sys	09-21-1978		

no translation provided

Examiner Signature	<i>Hernandez</i>	Date Considered	7/13/04
-----------------------	------------------	--------------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> See attached Kinds of U.S. Patent Documents. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

<sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.



<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/033,503
				Filing Date	December 27, 2001
				First Named Inventor	Ravi K. Kavuri
				Group Art Unit	2171
				Examiner Name	Unknown
Sheet	1	of	2	Attorney Docket Number	STK01028PUS (2001-028-NSC)

RECEIVED

APR 21 2004

Technology Center 2100

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
CF		USPTO - In re application of Application No.: 08/934,732, Filed: September 22, 1997 For: Virtual Storage System and Method - Information Disclosure Statement and PTO Form 1449 accompanying Protest Of Reissue Application Under 37 CFR §1.291, dated 7/19/99	
CF		USPTO - In re application of Application No.: 08/934,732, Filed: September 22, 1997 For: Virtual Storage System and Method - Protest Of Reissue Application Under 37 CFR §1.291 (with attached exhibits), dated 7/19/99	
CF		Sutmyn Storage Corporation, et al. v. Storage Technology Corporation and Storage Technology Corporation v. Sutmyn Storage Distribution Co., C97-20105 RMW, C97 20629 RMW. Plaintiffs' Notice Pursuant To 35 U.S.C. § 282, Dated 1/5/01	
CF		Sutmyn Storage Corporation, et al. v. Storage Technology Corporation and Storage Technology Corporation v. Sutmyn Storage Distribution Co., C97-20105 RMW, C97 20629 RMW, Findings of Fact and Conclusion of Law, dated March 18, 2003.	
CF		Boggs, J.K. Jr., "Virtual Input/Output Channels for a Digital Computer," IBM Technical Disclosure Bulletin, vol. 20; No. 1, June 1977, pp. 110-112.	
CF		Conti, C.J.; et all., "Structural aspects of the System/360 Model 85: General organization", IBM Systems Journal, vol. 7, No. 1, pp. 2-14, 1968.	
CF		Crittenden, Willard C., "Operational Characteristics of the NCAR Mass Storage Device," IEEE Computer, pp. 48-50, August 1980.	
CF		IBM, "Reference manual for IBM 3830 Storage Control Model 1 and IBM 3330 Disk Storage", GA-26-1592-5, 6 <sup>th</sup> Ed., November 1976 ((c) 1971).	
CF		MASSTOR, Shell Oil Proposal, December 18, 1978	

Examiner Signature	<i>Fernandes</i>	Date Considered	7/13/04
-----------------------	------------------	--------------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.



<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/033,503
				Filing Date	December 27, 2001
				First Named Inventor	Ravi K. Kavuri
				Group Art Unit	2171
				Examiner Name	Unknown
Sheet	2	of	2	Attorney Docket Number	STK01028PUS (2001-028-NSC)

RECEIVED

APR 21 2004

Technology Center 2100

**OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS**

Examiner Initials <sup>*</sup>	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
CF		Nishimukai, T. et al., "Universal IO Device Controller by Using Programmable Logic Arrays (PLA)", Conference Record, 11 <sup>th</sup> Asilomar Conference on Circuits, Systems and Computers, November 1977, pp. 477-480.	
CF		Porter, James N., "The Disk Drive Industry", IEEE Transaction on Magnetics, vol. MAG-14, No. 4, July 1978, pp. 149-153.	
CF		Puthuff, Steven H., "Technical Innovations in Information Storage and Retrieval", IEEE Transactions on Magnetics, vol. MAG-14, No. 4, July 1978, pp. 143-148.	
CF		Smith, Alan Jay, "Directions for Memory Hierarchies and their Components: Research and Development", 1978 IEEE, PP. 704-709.	
CF		Waddell, J.M., Way, D.L., "Channel Scheduling by a Control Unit", IBM Technical Disclosure Bulletin, vol. 17, No. 9, February 1975, pp. 2553-2556.	

Examiner Signature	Bernandes	Date Considered	7/13/04
-----------------------	-----------	--------------------	---------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup>Unique citation designation number. <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.